



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,511	03/12/2004	Jaroslav V. Belik	12038.0013.NPUS01	2372
7590	01/27/2006		EXAMINER	
Tyler VanHoutan Howrey Simon Arnold & White, LLP 750 Bering Drive Houston, TX 77057-2198			FULLER, ROBERT EDWARD	
			ART UNIT	PAPER NUMBER
			3672	

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/799,511	Applicant(s) BELIK, JAROSLAV V.	
	Examiner Robert E. Fuller	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 05/20/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the word "disclosed" in the first sentence of the abstract is a word which can be implied, and therefore should be deleted. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

2. Claim 2 is objected to because of the following informalities: There is a lack of antecedent basis for "the kelly bushing receptacles." Examiner suggests that "the kelly

bushing receptacles" be changed to --kelly bushing receptacles--. Appropriate correction is required.

3. Claim 19 is objected to because of the following informalities: A word is missing from claim 19. Examiner suggests that the word --geometry-- be inserted between "parallelogram" and "both." Appropriate correction is required.

4. Claim 23 is objected to because of the following informalities: A word is missing from claim 23. Examiner suggests that the word --position-- be inserted between "deactivated" and "wherein." Appropriate correction is required.

5. Claims 23-30 are objected to because of the following informalities: Applicant is attempting to claim a well drilling process, but does not specify any steps involved in a well drilling process. Examiner suggests that "A well drilling process" be changed to --A method of operating a power slip apparatus--. Appropriate correction is required. For the purposes of examination, it is assumed that the preambles of claims 23-30 are as suggested.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 5-10, 14, 16, 22, 23, 24, 27, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Kelley (US 2,340,597).

Art Unit: 3672

8. With respect to claim 1, Kelley describes a rotary slip lifter. Kelley further teaches slips (figure 1, item 13) attached to a pulling mechanism (figure 1), where the pulling mechanism is attached to a slip base (figure 1, item 2), and the slip base is seated in the main bushing of a rotary table (figure 1, item 4). Examiner notes that the pulling mechanism is considered to be all items—other than the slip bowl and rotary table—located to the left of an imaginary vertical line drawn through item 37 in figure 1. Kelley further teaches that the pulling mechanism is operated by a cylinder (figure 1, item 43).

9. With regard to claim 5, Kelley states that “lever 43...may be replaced by other suitable and conventional pneumatic or mechanical lever devices of a character well understood in the art,” which would encompass the pneumatic cylinder of claim 5.

10. With regard to claims 6-10, Kelley describes a pulling mechanism with a bottom arm (figure 1, item 25), a top arm (figure 1, item 35), and a pull arm (figure 1, item 29). The slips are suspended from an accommodating link (figure 1, item 22), which is attached to a pull-arm extension (figure 1, item 26).

11. With regard to claims 14 and 22, the pulling mechanism (as defined in paragraph 8 above) of Kelley is within the boundary of the rotary table (figure 1, item 4) when in the activated and the deactivated positions.

12. With regard to claim 16, Kelley describes a slip base (figure 1, item 2) seated in the main bushing of a rotary table (figure 1, item 4). Kelley's device has slips (gripping means, figure 1, item 13) attached to manipulating means (defined below, figure 1), which moves the slips in between the activated and deactivated positions (figure 1).

Examiner notes that the manipulating means are considered to be all items—other than the slip bowl and rotary table—located to the left of an imaginary vertical line drawn through item 37 in figure 1. Further, as can be seen in figures 1 and 2, the manipulating means of Kelley's device are never outside the boundary of the rotary table, neither in the activated nor the deactivated position.

13. With regard to claims 23 and 30, Kelley discloses a method of operating the power slip lifter apparatus described above. The method involves the following steps:

- a. Constructing the power slip lifter apparatus
- b. Manipulating the pulling mechanism between an activated and deactivated position wherein no portion of the pulling mechanism is outside the boundary of the rotary table in the activated position.

14. With regard to claim 24, Kelley discloses a method of operating the power slip lifter apparatus described above. Kelley further discloses that the pulling mechanism is manipulated by a cylinder (figure 1, item 43).

15. With regard to claim 27, Kelley discloses a method of operating the power slip lifter apparatus described above. Kelley further teaches that the cylinder can comprise a pneumatic cylinder (page 2, column 2, line 70).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

18. Claims 2, 3, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelley in view of Baugh (US 4,269,277).

With regard to claims 2 and 17, Kelley discloses all the limitations of the above claims, except for the slip base being attached to the rotary table via kelly bushing receptacles.

Baugh discloses a power slip assembly. Baugh further teaches a "base collar...equipped with throughbores by which the entire power slip assembly may be bolted to, for example, the framework of a fluid pressure drive assembly of a snubbing device, to a well workover rig, or to some other support means" (column 11, line 49).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have bolted the slip bowl of Kelley to the rotary table using the throughbores (or kelly bushing receptacles) of Baugh, in order to have formed a strong, releasable connection between the slip bowl and the rotary table.

With regard to claim 3, neither Kelley nor Baugh discloses connecting the slip base to the rotary table with magnets. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified

Art Unit: 3672

Kelley in view of Baugh, so that the slip base would have been connected to the rotary table with magnets, since the examiner takes Official Notice of the equivalence of bolts and magnets for their being used to connect elements of a slip device to the rotary table. The selection of any of these known equivalents to connect the slip base to the rotary table would have been within the level of ordinary skill in the art.

Further, it would have been an obvious matter of design choice to use magnets to connect the slip base to the rotary table, since applicant has not disclosed that using magnets solves any stated problem or is for any particular purpose and it appears that the invention would have functioned equally well with bolts or magnets.

19. Claims 4, 13, 21, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelley in view of Moore (US 2,545,627).

With respect to claims 4 and 26, Kelley discloses all of the limitations of the above claims, except for the pulling mechanism being controlled by a hydraulic cylinder.

Moore discloses a slip actuator device. Moore further teaches the functional equivalence of pneumatic and hydraulic cylinders, when he states that his pulling mechanism is controlled by "a plurality of hydraulic or pneumatic cylinders" (column 3, line 29).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have replaced the pneumatic cylinder of Kelley with the hydraulic cylinder of Moore, since the examiner takes Official Notice of the equivalence of hydraulic and pneumatic cylinders for their being used to control slip lifters or slip actuators. The selection of any of these known equivalents to control the pulling

Art Unit: 3672

mechanism would have been within the level of ordinary skill in the art, as evidenced by Kelley and Moore.

With respect to claims 13 and 21, Kelley discloses all the limitations of the above claims, except for the ability to operate the device by remote control.

Moore teaches that the hydraulic lines that control the lifting mechanism are routed to a control valve located at a remote point, "close to where the driller will stand."

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, that if the pneumatic cylinders of Kelley were replaced by the hydraulic cylinders of Moore, then those cylinders could have been operated at a remote location, as also taught by Moore, in order to have kept a safe distance between the operator of the slip device and the slip device itself.

20. Claims 11, 19, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelley in view of Poe (US 4,715,456).

Kelley teaches all the limitations of the above claims, except for the top and bottom arms forming a parallelogram shape in both the activated and deactivated positions.

Poe describes a hydraulically actuated slip device for a well pipe. Poe further teaches the use of "parallel links" which, as seen in figure 5, clearly form a parallelogram shape in both the activated and deactivated positions.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have replaced the arm assembly of Kelley with the parallel link setup of Poe, in order to have allowed the slip system to be "operated within

Art Unit: 3672

a reduced area” (Poe, abstract, line 4) and would have thereby improved operator safety.

21. Claims 12, 20, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelley in view of Broussard (US 4,450,606).

With regard to claims 12 and 20, Kelley describes all the limitations of the above claims. Kelley does not teach the encasing of the pulling mechanism within a protective sheath.

Broussard discloses a slip elevator device. Broussard further teaches the use of a “protective housing,” which encases the “working mechanism” (the pulling mechanism) of Broussard’s invention (column 7, line 27).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have included the protective sheath of Broussard with the pulling mechanism of Kelley, in order to have “discourage[d] the entry of dust, drilling mud or other abrasive material to the working mechanism” (Broussard, column 7, line 29).

With regard to claim 25, Kelley discloses all of the limitations of the above claims. Kelley does not disclose the use of springs for manipulating the pulling mechanism.

Broussard discloses a slip elevator device. Broussard’s device uses a plurality of coil springs (figure 2, item 42) for the purpose of manipulating the pulling mechanism between the activated and deactivated position. Broussard states that “a plurality of coil springs is provided for biasing the linkage to the upper position thus elevating connected slips” (abstract, line 10).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have replaced the pneumatic cylinder of Kelley with the coil springs of Broussard, in order to have provided an equally effective biasing mechanism without the need for air lines or hydraulic fluid lines.

22. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kelley in view of Moore.

Kelley discloses all the limitations of the above claims. Kelley does not disclose a slip puller apparatus wherein no portion of the device is outside the boundary of the rotary table.

Moore discloses a slip actuator device. Moore's device is completely within the boundary of the rotary table, as seen in figure 1, where the rotary table is designated as reference numeral 1.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have replaced the actuating mechanism of Kelley with the actuating mechanism of Moore, in order to have allowed the slip actuator device to operate within the boundary of the rotary table and would have thereby improved operator safety.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references further teach the state of the art with regard to automated slip actuator devices.

US 6,948,575 – Mosing et al.

US 5,042,601 – Penisson

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert E. Fuller whose telephone number is 571-272-0419. The examiner can normally be reached Monday thru Friday from 8:00 AM - 5:30 PM. The examiner is normally out of the office every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/19/2006
REF


DAVID BAGNELL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600